

Abstract

The exposure apparatus 100 comprises a double shell structure which has an upper vacuum chamber 140 on the outside of the reticle chamber 135, and a lower vacuum chamber 160 on the outside of the wafer chamber 155. A cryo pump CP and a turbo molecular pump TMP/dry pump DP are connected in parallel to each of the chambers, i.e., the reticle chamber 135 and wafer chamber 155. During exposure operation and alignment of the exposure apparatus 100, only the cryo pump CP (vibration-free type vacuum pump) is operated; the turbo molecular pump TMP/dry pump DP (vibrating type vacuum pump) is stopped. As a result, it is possible to cut off the transmission of vibration from the vibrating type vacuum pump during exposure operation and alignment of the exposure apparatus, so that the precision of the stage devices 137 and 157 can be ensured to a much greater degree; accordingly, deterioration of the exposure performance can be reduced to a much greater extent.